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10/772,815

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Shugong Xu

SLA1535

5959

7590
Gerald W. Maliszewski
P.O. Box 270829
San Diego, CA 92198-2829

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EXAMINER

SIDDIQI, MOHAMMAD A

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/772,815	Applicant(s) XU, SHUGONG	
	Examiner MOHAMMAD A. SIDDIQI	Art Unit 2454	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,7,8,11-15,18,19,22-25,28,31-35,38 and 41-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7-8,11-15,18-19,22-25,28,31-35,38,41-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-4, 7-8, 11-15, 18-19, 22-25, 28, 31-35, 38, and 41-44 are presented for examination. Claims 41-44 are new. Claims 5-6, 9-10, 16-17, 20-21, 26-27, 29-30, 36-37, and 39-40 have been cancelled.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/07/2008 has been entered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the

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requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1, 3, 4, 7, 8, 11, 12, 14, 15, 18, 19, 22, 24, 25, 28, 31, 32, 34, 35, 38, and 40-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueda et al (US 2004/0190459) (hereinafter Ueda).

5. As per claim 1, Ueda discloses a method for receiving an MPEG2 transport stream (TS) in a real-time protocol (RTP)/user datagram protocol (UDP)/Internet protocol (IP) packet, the method comprising:

receiving (130, fig 1, para #0073) an IP packet via an IP network, having a variable transmission delay (para #0003; #007);

accessing a timestamp carried in a RTP packet (para #0003; #009; para #0074);

accessing an index field in the RTP packet header (504, fig 25, para #0095);

linking the timestamp with a program clock reference (PCR) MPEG2TS carried in the RTP packet payload (para #00123) by using the index to point to a PCR MPEG2TS randomly positioned (storage area is managed by using indexes, para#0095) in the RTP packet payload (fig 4, para #0095; #0099); and,

using the timestamp to eliminate variable transmission delay jitter, associated with the PCR MPEG2TS (para #0003; #009-#0010; para #0119, minimized).

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6. As per claim 3, Ueda discloses accessing a timestamp carried in the RTP packet includes accessing a RTP timestamp carried in a RTP packet header (para #0074).

7. As per claim 4, Ueda discloses linking the timestamp with a PCR MPEG2TS carried in the RTP packet payload includes linking the RTP timestamp with a solitary PCR MPEG2TS carried in the RTP packet payload (fig 25, para #0010; page 5, para #0074-#0075) .

8. As per claim 7, Ueda discloses accessing an index field in the RTP packet header includes accessing a timestamp packet index field (504, fig 25, , para #0009-#0010; para #0074-#0075); and, wherein linking the timestamp with a PCR MPEG2TS carried in the RTP packet payload includes using the timestamp packet index to link an RTP timestamp to a PCR MPEG2TS randomly positioned in the RTP packet payload (fig 25, para #0009-#0010; para #0074-#0075).

9. As per claim 8, Ueda discloses accessing an index field in the RTP packet header includes accessing a PCR MPEG2TS index field (504, fig 25, para #0009-#0010; para #0074-#0075); wherein accessing a timestamp carried in the RTP packet includes accessing a PCR MPEG2TS timestamp carried in a RTP packet header; and, wherein linking the timestamp with a PCR MPEG2TS carried in the RTP packet payload includes using the PCR MPEG2TS index to point to a PCR MPEG2TS randomly positioned in the RTP packet payload (504, fig 25, para #0009-#0010; page 5, para

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#0074-#0075).

10. As per claim 11, Ueda discloses using the timestamp to eliminate variable transmission delay jitter, associated with the PCR MPEG2TS, includes using the timestamp to determine the target transmission time of the PCR MPEG2TS (para#0003; para #0009-#0010; para #0074-#0075).

11. As per claim 12, Ueda discloses a method for transmitting an MPEG2 transport stream (TS) in a real-time protocol (RTP)/user datagram protocol (UDP)/Internet protocol (IP) packet, the method comprising: encapsulating a program clock reference (PCR) MPEG2TS in the RTP packet payload (para#0003; para #0009-#0010; page 5, para #0074-#0075);

encapsulating a timestamp randomly positioned in a RTP packet payload, referencing the PCR MPEG2TS target transmission time (130, fig 4, para #0009-#0010);

encapsulating the RTP packet in an IP packet (para#0003; para #0009-#0010; para #0074-#0075);

encapsulating an index in the RTP packet header pointing to the position of the MPEG2TS in the RTP packet payload (storage area is managed by using indexes, para#0095); and

transmitting the IP packet via an IP network (para#0003; para #0009-#0010; para #0074-#0075).

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12. As per claim 14, Ueda discloses encapsulating a timestamp in a RTP packet includes encapsulating an RTP timestamp in the RTP packet header (para #0074).

13. As per claim 15, Ueda discloses encapsulating a PCR MPEG2TS in the RTP packet payload includes encapsulating a solitary PCR MPEG2TS in the RTP packet payload (fig 25, para #0009-#0010; para #0074-#0075).

14. As per claim 18, Ueda discloses encapsulating a timestamp in a RTP packet includes encapsulating an RTP timestamp in the RTP packet header (para #0009-#0010; para #0074-#0075; page 9, para#0122-#0123); and, wherein encapsulating an index in the RTP packet header includes encapsulating a timestamp packet index in the RTP packet header (para #0009-#0010; page 5, para #0074-#0075; page 9, para#0122-#0123).

15. As per claim 19, Ueda discloses encapsulating a timestamp in the RTP packet includes encapsulating a PCR MPEG2TS timestamp (para #0009-#0010; para #0074-#0075; para#0122-#0123); and, wherein encapsulating an index in the RTP packet header includes encapsulating a PCR MPEG2TS index field in the RTP packet header (para #0009-#0010; para #0074-#0075; page 9, para#0122-#0123).

16. As per claims 22, the claim is rejected for the same reasons as claim 1, above. In addition, Ueda discloses decoder (320, fig 1), a buffer (121, fig 4), and a system clock

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(para #0106) having an interface to receive the PCR MPEG2TS with the constant delay and to provide a synchronized system time (Para #0106-#0108).

17. As per claims 24, 25, 28 and 31, claims are rejected for the same reasons as claims 1, and 22, 3, 4, 7, 8 and 11 above.

18. As per claims 32, the claim is rejected for the same reasons as claim 12, above. In addition, Ueda discloses a system clock (para #0106) having an interface to supply a program clock reference (PCR) MPEG2TS (Para #0106-#0108).

19. As per claims 34, 35, 38, claims are rejected for the same reasons as claims 32, and 14, 15, 18, and 19 above.

20. As per claim 41, Ueda discloses a method for receiving an MPEG2 transport stream (TS) in a real-time protocol (RTP)/user datagram protocol (UDP)/Internet protocol (IP) packet, the method comprising:

receiving (130, fig 1, para #0073) an IP packet via an IP network, having a variable transmission delay (para #0003; #007);

accessing a local timestamp field in an MPEG2TS delay compensation data structure (fig 2, para #0003; #009; para #0074), where the MPEG2TS delay compensation data structure is carried in the RTP packet payload and includes the local timestamp and a corresponding PCR MPEG2TS (fig 2, para #0088);

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linking the timestamp with a program clock reference (PCR) MPEG2TS carried in the RTP packet payload (para #00123);
using the timestamp to eliminate variable transmission delay jitter, associated with the PCR MPEG2TS (para #0003; #009-#0010; para #0119, minimized); and,
wherein linking the timestamp with a PCR MPEG2TS carried in the RTP packet includes linking the local timestamp to the corresponding PCR MPEG2TS in the MPEG2TS delay compensation data structure (130, fog4, para # 0009; para #0095).

21. As per claim 42, Ueda discloses wherein accessing a local timestamp field in an MPEG2TS delay compensation data structure includes accessing a local timestamp field in each of a plurality of MPEG2TS delay compensation data structures carried in the RTP packet payload, where the MPEG2TS delay compensation data structures include an MPEG2TS selected from the group including PCR and non-PCR MPEG2TSs (payload type field anticipates more than PCR data, fig 2, para #0090;
wherein linking the timestamp with a PCR MPEG2TS carried in the RTP packet payload additionally includes linking local timestamps with corresponding non-PCR MPEG2TSs (RTP packets, fig 4, para #0095 and para #0099); and,
wherein using the timestamp to eliminate variable transmission delay jitter, associated with the PCR MPEG2TS, additionally includes using the local timestamps to eliminate jitter associated with corresponding non-PCR MPEG2TSs (para #0003; #009-#0010;para #0119, minimized).

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22. As per claim 43, Ueda discloses a method for transmitting an MPEG2 transport stream (TS) in a real-time protocol (RTP)/user datagram protocol (UDP)/Internet protocol (IP) packet, the method comprising:

encapsulating a program clock reference (PCR) MPEG2TS in an MPEG2TS delay compensation structure (fig 2, para #0009-0010; para #0088), carried in the RTP packet payload (fig 2, para #0088);

encapsulating a timestamp in a RTP packet (fig 2, para #0088), referencing the PCR MPEG2TS target transmission time (fig 2, para #0009-0010; para #0088);

encapsulating the RTP packet in an IP packet; transmitting the IP packet via an IP network; and, wherein encapsulating a timestamp in the RTP packet includes

encapsulating a local timestamp in the MPEG2TS delay compensation data structure (fig 2, para #0009-0010; para #0088), referencing the co-encapsulated PCR MPEG2TS (fig 2, para #0009-0010; para #0088).

23. As per claim 44, Ueda discloses wherein encapsulating the PCR MPEG2TS in an MPEG2TS delay compensation structure includes encapsulating a plurality of MPEG2TSs(fig 4, para #0009-0010; para #0088), selected from the group including PCR MPEG2TSs and a non-PCR MPEG2TSs, in a corresponding plurality of MPEG2TS delay compensation structures (fig 2, para #0009-0010; para #0088); and, wherein encapsulating a local timestamp field in the MPEG2TS delay compensation data structure includes encapsulating a local timestamp field in each MPEG2TS delay

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compensation structure, referencing a co-encapsulated MPEG2TS (fig 2, para #0009-0010; para #0088; para #0095).

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claims 2, 13, 23 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al (US 2004/0190459) (hereinafter Ueda) in view of Ando et. al. (7,274,863) (hereinafter Ando).

26. As per claims 2, 13, 23, and 33 Although Ueda shows transmitting and receiving MPEG2 transport stream using real time protocol, further discloses RTP timestamp included in the RTP header. Ueda does not explicitly disclose accessing the timestamp carried in the RTP packet includes accessing a timestamp having a resolution of greater than 500 nanoseconds (ns); and, wherein using the timestamp to eliminate variable transmission delay jitter, associated with the PCR MPEG2TS, includes reducing the jitter to less than 500 ns. However, accessing the timestamp carried in the RTP packet includes accessing a timestamp having a resolution of greater than 500 nanoseconds

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would be the obvious modification to system taught by Ueda. For example, Ando discloses accessing the timestamp carried in the RTP packet includes accessing a timestamp having a resolution of greater than 500 nanoseconds (ns) (col 1, lines 33-43); and, wherein using the timestamp to eliminate variable transmission delay jitter, associated with the PCR MPEG2TS, includes reducing the jitter to less than 500 ns (col 1, lines 33-43). It would have been an obvious modification to the system disclosed by Ueda to include the teachings of Ando to synchronize the RTP timestamp to the value stored in the TS packet.

Response to Arguments

27. Applicant's arguments filed 10/07/2008 have been fully considered but they are not persuasive, therefore rejections to claims 1-4, 7-8, 11-15, 18-19, 22-25, 28, 31-35, 38, and 41-44 is maintained.

28. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a timestamp index carried in an RTP packet header, or a timestamp index that points to a PCR MPEG2TS randomly positioned in the RTP packet payload) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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29. In the light of the forgoing discussion, the Examiner's conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a). In response to Applicant's arguments **against the references individually**, one cannot show non-obviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case Ueda disclose accessing an index field in the RTP packet header (504, fig 25, para #0095) or that uses the index to point to a PCR MPEG2TS randomly positioned (storage area is managed by using indexes, para#0095) in the RTP packet payload (fig 4, para #0095; #0099). Ando discloses accessing the timestamp carried in the RTP packet includes accessing a timestamp having a resolution of greater than 500 nanoseconds (ns) (col 1, lines 33-43); and, wherein using the timestamp to eliminate variable transmission delay jitter, associated with the PCR MPEG2TS, includes reducing the jitter to less than 500 ns (col 1, lines 33-43). It would have been an obvious modification to the system disclosed by Ueda to include the teachings of Ando to synchronize the RTP timestamp to the value stored in the TS packet.

Conclusion

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30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD A. SIDDIQI whose telephone number is (571)272-3976. The examiner can normally be reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MS

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2454